



How to Read Chapter 4

Instead of general tips, we are going to focus specifically on Chapter 4 in your textbook, **Elementary Algebra** by Bittinger and Ellenbogen.

No solving equations in this whole chapter!

Meet **TRG**,
your
Textbook
Reading
Guide!

Follow his
sneakers for
hints and
tips.



I missed that. Are you sure? Where does it say that!

At the top of p. 226, in the italics paragraph. I almost missed this because I jumped right down to 4.1. But go back and find this sentence "*Here in Chapter 4. we will focus on finding equivalent expressions, **not on solving equations.***"

I added the bold here, but I highlighted it in my textbook, simply because it made me happy and gave me hope that I would do well in this chapter!



When do I get to MyMathLab?.

Hold up. I'm going to show you how MyMath Lab integrates with your textbook and when to go to MyMathLab and when to come back to the textbook. It will make a lot of sense and help those procrastinators keep on track. Not that there are any in this class, but ...

Look at the box. 4.1 I know that this is a math class and the least they could do in number how many parts. So I guess I have to count. OK. There are 5 parts to this section.

OK. Now let me find these 5 parts in the chapter and I am going to number them, so I can check them off as I do them. (Another way to help me see my progress and avoid procrastination.)

Oh, look. The 5 parts are the 5 big red titles. So number 1 will be

Multiplying Powers with Like Bases

I will mark this one.

Oh, look what I found on the last page in a **blue outlined box**. It looks like a cheat sheet. Might be a good idea to put this on an index card as a reference, so when I do my homework I will have something to look back on and remember.

Also it only has 3 Rules. Well, the 3rd one does have 2 parts. But still, it's manageable.

Let's begin.



4.1 begins on p.226. My number one topic is Multiplying Powers with Like Bases.

1. Now even though it says Multiply and shows this as an example, the short cut is to add the exponents.
2. Yellow Box has the Product Rule. OK, that was the first rule in the blue box at the end of the chapter. Guess I better learn this one.
3. OK. It is what we just did. I like the phrase at the bottom. To multiply powers with the same base, **keep the base and add the exponents**. I can remember this.

Now they give examples. I'm going to use my index card to cover the solution and see if I can do this right away, while it's still fresh in m mind.

Try it myself.

1.



Oops .How come in problem **d.**, the answer doesn't equal 13? I added the exponents, but

Quiz yourself. I just added straight across the line. I guess I was supposed to pay attention to two separate bases here. One for **a** and one for **b**. Guess I have to add the exponents for **a** with the other **a** and the exponents for **b** with the other **b**. Tricky. I'd better watch out for this one.



Hey. I'm already up to #2. Hooray.. That means that I am 1/5 of the way through. Let's see what is that in percentage. Hey. I'm 20% of the way through the lesson. Yippee.

Now I get to go to MyMathLab



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| Book Contents for All Topics | Correct | Worked | Available Exercises | Time Spent |
|--|---------|--------|---------------------|------------|
| Ch 1: Introduction to Algebraic Expressions | 9 | 12 | 348 | 22m 36s |
| Ch 2: Equations, Inequalities, and Problem Solving | | | 224 | |
| Ch 3: Introduction to Graphing | 3 | 7 | 198 | 13m 3s |
| Ch 4: Polynomials | 0 | 2 | 307 | 4m 24s |
| 4.1 Exponents and Their Properties | 0 | 2 | 40 | 4m 24s |
| Simplify products of terms with like bases. | 0 | 1 | 10 | 1m 22s |
| Simplify quotients of terms with like bases. | | | 8 | |
| Simplify terms with an exponent of zero. | | | 4 | |
| Simplify terms with an exponent raised to a power. | 0 | 1 | 10 | 3m 2s |
| Simplify quotients with exponents raised to a power. | | | 8 | |
| 4.2 Polynomials | | | 35 | |
| 4.3 Addition and Subtraction of Polynomials | | | 34 | |
| 4.4 Multiplication of Polynomials | | | 33 | |



This is a tiny picture, but I got it. I go to 4.1 and do the first one, which just happens to be **Simplify products of terms with like bases**. I'd better go do this, while I still remember what's going on. Then I can come back to my textbook for #2.

My second part of 4.1 is **Dividing Powers with Like Bases**. p. 227 Let's see what they have in this section.



2nd part

Oh. Look. I think that there is a hint in the first sentence. *Any expression that is divided or multiplied by 1 is unchanged*. I must have heard this before, but I forgot. I'm glad that they reminded me.

Hey. In this part, I subtract the exponents. So when I am multiplying, I add the exponents. Now when I am dividing, I subtract. Time to turn the page. I'll bet there's a rule coming up!

Yup. It's the quotient rule. Oh.oh. Quotient is not on my index card. And blast, it's not in the

glossary either. I guess that I am supposed to know this, but Math vocabulary is tricky.

Here's an easy site to look up math words. Besides, it gives me pictures to help me remember the math word. I going to look up quotient.

<http://www.mathsisfun.com/definitions/quotient.html>

Math Vocab



Back to the yellow box for the quotient rule. Now they are talking about numerator and denominator. I always get these mixed up. Let's see. Denominator sound like down. Hey, I'm right. Denominator is down on the bottom. Well, that's a good little memory trick to help me remember which is which.

Time to try the problems. I'll cover up the solutions and see which ones I can do.



Good until the last one. I got 3 and 7. Where did that 1 come from? Better check this out before I go to MyMATH LAB.

Now I am $\frac{2}{5}$ of the way through. That's 40%.. Just do the homework problems and come back to get half way through.

When does zero become one? No it's not a trick question. Check out the yellow box for the exponent rule. That's one thing that's not in the blue box on page 232. But I know that I'll forget it. So I am going to add it to my Cheat Sheet index card!



3rd part

I covered up the solutions and gave it a go. But I'll need more help for **d** and **e**.

I need more help on these. Aren't there **videos** an **animations** in MyMathLab? Let's go see. When I finish this section, I'll be more than half way through! Then I can come back and finish the last 2 sections.



OK. I've done addition and subtraction. Do you suppose that multiplication is next?



Right. So the Power Rule is "**To raise a power to a power, multiply the exponents and leave the base unchanged.**"

Only two problems to do. Great.

4th part Now what's that Student Note thingme? It's a *memory hint*. Good I need all of these that I can get.

Now back to MyMathLab. And then back here for one last section.

Last part. Hooray. But this part has **2 yellow boxes**.

To raise a **product** to a power, raise each factor to that power.



OK. Now just 3 problems. Oh. bother. I missed the first one. I answered 12. I'll have to remember that 4 times 3 is not the same as 4 cubed, which is 4 times 4 times 4!

5th and last! In **b**, I missed the parentheses! And the textbook knew I was going to do that. Now I'll try **c**. Well, I did alright until I got to the last step, adding exponents. I need more help on this.

I'll go to MyMathLab and get some help with the **Help Me Solve This** button..When I've got this, I'll come back to the second yellow box on page 231.

To raise a quotient to a power, raise the numerator to the power and divide by the denominator to the power.



Good thing, I made a memory hint to remember which was the numerator and which was the denominator.

Now I will practice again without looking at the solution. Well, I did OK until **c**. Then I made the same stupid mistake of saying 3 squared = 6, which is 3 times, not 3 times 3. I am going to have to watch this. I will have to practice more to fix this mistake. I will probably have to do more problems to correct this mistake, so I can go down the right road.



Now off to MyMath Lab.

You should use this same method in the rest of the sections of this Chapter. Good luck!

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